

INSTRUCTIONS

JVC

BR-S522E

VIDEO CASSETTE PLAYER

VIDEOKASSETTENPLAYER

LECTEUR DE CASSETTE VIDEO



VHS
PAL

Hi-Fi



SAFETY PRECAUTIONS

Warning Notice

FOR YOUR SAFETY (Australia)

1. Insert this plug only into effectively earthed three-pin power outlet.
2. If any doubt exists regarding the earthing, consult a qualified electrician.
3. Extension cord, if used, must be three-core correctly wired.

IMPORTANT (In the United Kingdom)

Mains Supply (AC 240 V~)

WARNING - THIS APPARATUS

MUST BE EARTHED

The wires in this mains lead are coloured in accordance with the following code;

GREEN-and-YELLOW:	EARTH
BLUE:	NEUTRAL
BROWN:	LINE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows. The wire which is coloured GREEN-AND-YELLOW must be connected to the terminal in the plug which is marked with the letter E or by the safety earth symbol  or coloured GREEN or GREEN-AND-YELLOW. The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or which is coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

POWER SYSTEM

Connection to the mains supply

The operating voltage of this set is preset to 220 - 240 V~ at the factory.

Before connecting to mains, check that the voltage selector on the rear panel is set to the same voltage as your local mains supply.

Adapting to local power line

This set operates on 110 - 127 V/220 - 240 V~ AC, 50/60 Hz.

If the preset voltage is different from the power line voltage in your area, reset the voltage selector by inserting a screwdriver into the slot of the voltage selector and turning it until the correct voltage is displayed.

This unit is produced to comply with Directives 76/889/EEC, 82/499/EEC, 87/308/EEC, and IEC Publ.65.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION

To prevent electric shock, do not open the cabinet. No user serviceable parts inside. Refer servicing to qualified service personnel.

Note:

The rating plate and the safety caution are on the rear of the unit.

WARNING:

It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast, or cable programme and in any literary, dramatic, musical, or artistic work embodied therein.

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HOW TO USE THIS MANUAL

This manual introduces you to the BR-S522E S-VHS Player and shows you how to make the most of its many advanced features. Because the manual is written for the person who has some experience in videotape recording and is familiar with the terms and techniques described, explanations and definitions are kept to a minimum.

Also, some functions are available only when the corresponding optional boards are plugged in. Whenever these functions are referred to in the text, it is assumed that the corresponding boards have been installed.

- TBC functions are available only when the optional SA-T22E Time Base Corrector boards are installed.
- Component Y/R-Y/B-Y outputs are available only when the optional SA-T22E Time Base Corrector boards and accompanying component output connector board are installed.

- TC functions are available only when the optional SA-R22E Time Code Reader/Generator board is installed.
- 45-Pin parallel interface is possible only when the optional SA-K28E Interface board is installed.
- RS-232C interface is possible only when the optional SA-K27E Interface board is installed.
- Y/C686/924 Output is available only when the optional SA-E92E Output board is installed.
- DNR function is available only when the optional SA-N22W Digital Noise Reducer is plugged into the SA-T22E.

IMPORTANT

Instructions for all operations are based on the setup menu's initial settings unless otherwise specified. We recommend that you familiarize yourself with the available settings before operating the VCR. For more information, please refer to "Setup Menu", p.19

PRECAUTIONS

VCR

- Avoid using the unit in places subject to the following conditions:
 - extreme heat, cold, or humidity,
 - dust,
 - vibrations, and
 - poor ventilation.
- Be careful of moisture condensation. Do not use the unit immediately after moving it from a cold place to a warm place. The water vapor in warm air will condense on the still-cold video head drum and tape guides and may cause damage to the tape and the unit.
- Handle the unit carefully.
 - Do not block the ventilation openings.
 - Do not place anything heavy on the unit.
 - Do not place anything which might spill on the top cover of the unit.
- Use in horizontal (flat) position only.
- During transportation,
 - Avoid violent shocks to the unit during packing and transportation.
 - Before packing, be sure to remove the cassette from the unit.

VIDEO CASSETTES

This player uses S-VHS, S-VHS-C, VHS, and VHS-C cassettes. Only cassettes recorded in the standard play (SP) mode can be played on this player.

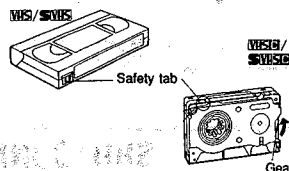
S-VHS: SE-180 for 180 minutes, SE-120 for 120 minutes, SE-60 for 60 minutes, and SE-30 for 30 minutes of playback.

S-VHS-C: SE-C30 for 30 minutes of playback.

VHS: E-180 for 180 minutes, E-120 for 120 minutes, E-90 for 90 minutes, E-60 for 60 minutes, and E-30 for 30 minutes of playback.

VHS-C: EC-30 for 30 minutes of playback.

- Before loading a compact cassette, be sure the tape is not slack. If there is any slack, turn the gear on the cassette in the direction of the arrow to take up the slack.
- Avoid exposing the cassettes to direct sunlight. Keep them away from heaters.
- Avoid extreme humidity, violent vibrations or shocks, strong magnetic fields (near a motor, transformer or magnet), and dusty places.
- Place the cassettes in cassette cases and position vertically.



FEATURES

Newly-developed full-size/compact-compatible cassette loading mechanism

Similar in principle to the loading mechanisms employed in M-II, 3/4-inch, and other high-performance professional equipment, the BR-S522E's newly-developed cassette loading mechanism can directly accept both regular and C-sized S-VHS cassettes*. The tape transport system has also been improved to provide faster search speeds and more stable transport. C-size S-VHS cassettes are already popular in image acquisition — as exemplified by the success of JVC's GY-X1 S-VHS-C camcorder — and are expected to assume a more important role in distribution, on-air transmission, and other applications.

Open-ended system architecture with plug-in TC and TBC capability

To better meet the requirements of different edit suites, the BR-S522E has been designed to permit open-ended system expansion. Built-in interfaces are provided for 9-pin RS-422A serial remote, COMPOSITE OUT, and Y/C443 OUT. Further system expansion and customisation is facilitated by a variety of optional "snap-in" boards. These include a time code reader/generator (LTC/VITC), a TBC with field memory and COMPONENT OUT circuit, as well as a 45-pin remote control board, an RS-232C remote control board for connection to a computer, and a Y/C686/924 OUT processor board. Since these circuit boards can be slotted directly into the BR-S522E, it can easily be configured to fit into any existing system without the need for expensive alterations or additional space.

High-quality pictures

S-VHS picture quality* has been improved still further with the addition of advanced circuitry including a digital DOC. Moreover, this high picture quality is maintained through multi-generational dubbing; even after as many as five generations, the results match those available from 3/4-inch equipment. For improved playback picture performance, noise reduction circuitry and switching noise masking are provided.

- * Technology licensed by FAROUJIA Laboratories.
- * Employs chroma-enhancing technology co-developed by JVC and FAROUJIA Laboratories and modified for S-VHS applications.

- * Since both regular and C-size cassettes can be directly inserted, do not use an cassette adaptor.

Fully-equipped for high-performance professional edit feeding

The BR-S522E is equipped with a comprehensive set of studio level feeder functions such as colour frame servo, auto H-Phase lock, and capstan bump. Search/jog dials are also provided for fast and accurate location of edit points with maximum visual search speed increased to 32x.

Menu Display and On-Screen Mode Check

For easy set-up and customisation, the BR-S522E features a menu display which allows simple dial setting and switching of most basic functions while referring to indications on the counter display or on-screen. As a result, many seldom-used external switches have been eliminated. Even functions normally requiring DIP switch resetting can be switched directly via the menu display. On-screen mode check and warning indications are also provided.

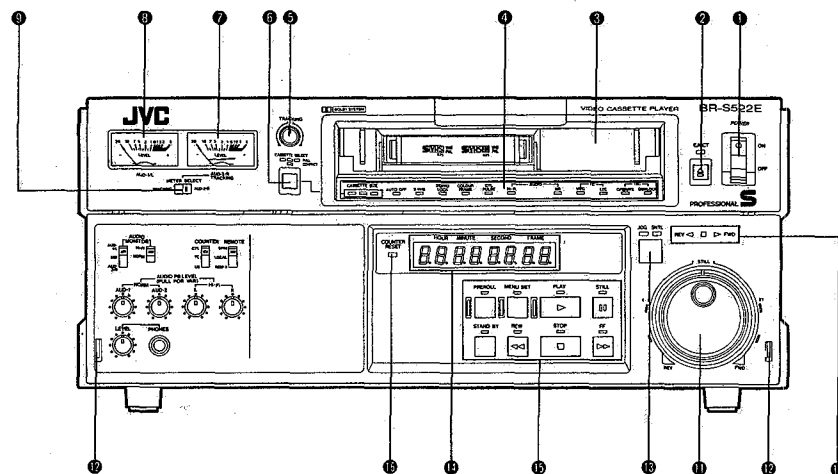
Other features

- Hi-Fi Stereo system with a dynamic range of more than 87 dB
- Two-channel normal audio with switchable Dolby B* noise reduction
- Independent audio playback level controls for all four channels
- XLR balanced audio connectors
- Two level meters switchable between Hi-Fi and Normal audio; the right meter can also function as a tracking meter
- 8-Digit time counter for indication of tape position in either TC or CTL mode
- Wide-aspect (16:9) ID playback capability
- External sync input for reference video
- Y-Frequency response control
- Tilttable control panel
- Heavy-duty full-loading mechanism with high-speed chassis
- Self-diagnostic warning system
- Front-access test points
- Automatic head cleaning mechanism
- 9999-hour meter switchable from tape counter
- Headphone jack with adjustable level output
- 19-inch EIA rack mounting
- 4-Field sequence colour frame servo

- * Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

CONTROLS AND CONNECTORS

FRONT PANEL



1 POWER switch

- When power is ON, the time counter and level meters will be illuminated.

2 EJECT button with LED indicator

- Ejects the cassette (from any mode).
- The indicator lights while the cassette is being ejected.

3 Cassette loading slot

- Accepts either a compact or full-size S-VHS/VHS cassette according to the type selected with the CASSETTE SELECT button 4.

4 LED Indicators

- CASSETTE SIZE Indicators**
 - Indicate whether the player is in the Full or Compact mode. When all three indicators are blinking, the player is ready to accept a full-size cassette. When only the center indicator is blinking, the player is ready to accept a compact cassette. Press the CASSETTE SELECT button 4 to change modes. When a cassette is inserted, the blinking will stop and the corresponding indicator(s) will remain continuously lit.

AUTO OFF Indicator

- Lights when the unit malfunctions. All controls are disabled.

S-VHS indicator

- Lights when an S-VHS or S-VHS-C cassette is inserted with the unit in the S-VHS mode, or when playing back a blank part of the tape.

TBC indicators

(with optional SA-T22E TBC installed)

OPERATE: Lights when the TBC is in operation. A timebase-corrected signal is output.

GENLOCK: Lights when the TBC is in operation and locked to the external reference signal.

SERVO indicators

SERVO LOCK: Lights when the capstan and drum servos are locked to the reference signal.

CTL PULSE: Lights during playback of a tape with no control pulse recorded.

COLOUR FRAME: Lights when the capstan and drum servos are locked to PAL 4-field colour frame.

AUDIO indicators

Hi-Fi: Lights when playing back Hi-Fi-recorded tapes.

NR: Lights when the Dolby B[®] noise reduction circuit is set to ON (via menu setting).

TC (TIME CODE) indicators

(with optional SA-R22E TC [time code] generator/reader installed)

LTC: Lights green when LTC-recorded tapes are played back with the normal audio-2 track set for LTC use (via menu setting). If LTC is not picked up, the indicator lights orange. This indicator may also light when normal-audio-recorded tapes are played back.

VITC: Lights when VITC-recorded tapes are played back.

5 TRACKING control

- Adjusts tracking. Turn in either direction until the tracking meter deflects all the way to the right.
- Normally leave in the center click-stop position.

6 CASSETTE SELECT button

- Press to select FULL or COMPACT. The corresponding indicator(s) will light. (Cassette size selection is inhibited when menu item #332 is set to "01 - ON", see p.23.)

7 AUD-2/R (TRACKING) level meter

- Indicates the audio level of the normal audio-2 or Hi-Fi right-channel signal during playback.
- Functions as a tracking meter during playback when the METER SELECT switch 8 is set to TRACKING.

8 AUD-1/L level meter

- Indicates the audio level of the normal audio-1 or Hi-Fi left-channel signal during playback.

9 METER SELECT switch

- Switches the AUD-2/R level meter 7 between audio level and indication.

AUD-2/R: Meter functions as the audio-2/Hi-Fi right-channel level meter.
TRACKING: Meter functions as a tracking meter.

10 Tape direction indicators

- Indicate the current tape direction.

▷: Forward

□: Still

◁: Reverse

11 JOG/SHUTTLE dials

- Dual concentric controls. The outer functions as a Shuttle ring, the inner as a Jog dial. The Jog and Shuttle modes can be entered directly from the Play, Still, FF, REW, or Stop modes.

SHUTTLE ring: Search speed can be varied continuously from 1/30 to 32 times normal (up to 14 times normal with C-size cassettes) in forward or reverse. Set to the center click-stop position to engage the Still mode.

JOG dial: Manual frame-by-frame search in either direction. Tape speed is determined by the speed of dial rotation. Releasing the dial engages the Still mode. Also used in menu setting.

12 Control panel lock release buttons

- To tilt the control panel, press these buttons and lift the panel at the same time. The panel can be tilted to 90° and locked at angles of 25°, 50°, and 75°.

13 JOG/SHUTTLE button with JOG/SHTL mode indicators

- Instantly re-activates the Shuttle mode with search speed determined by the current dial setting.

14 Time counter

- Shows tape time in hours, minutes, seconds, and frames.
- Displays user bits (with optional time code reader installed).
- Displays menu settings and warnings.

15 Operation buttons with LED indicators

STILL button

- Displays a still picture when pressed in the Play mode.

PLAY button

- Starts playback.
- Re-starts normal playback when pressed in the Still or Search mode.

- Changes the setting of setup menu items.

PREROLL button

- Prerolls the tape by about 7 seconds. Preroll time is selectable via menu item #320 (see p.23).

STAND BY button

- Switches between the Standby-On and Standby-Off modes while the player is in the Stop mode. Standby-On is automatically engaged when the Stop button is pressed. Standby-On: The tape is loaded and the drum is rotating. The indicator is lit.

Standby-Off: The tape is loaded but tape tension is reduced and the drum does not rotate. The indicator is not lit. Standby-off status is selectable via menu item #310 (see p.22).

REW button

- Starts rewind when pressed in any mode. Maximum REW speed is selectable via menu item #319 (see p.23).

STOP button

- Engages the Stop mode (Standby-On). The tape stops, but remains in the full-loaded position with the drum rotating.

- The STOP and STAND BY indicators will light.

FF button

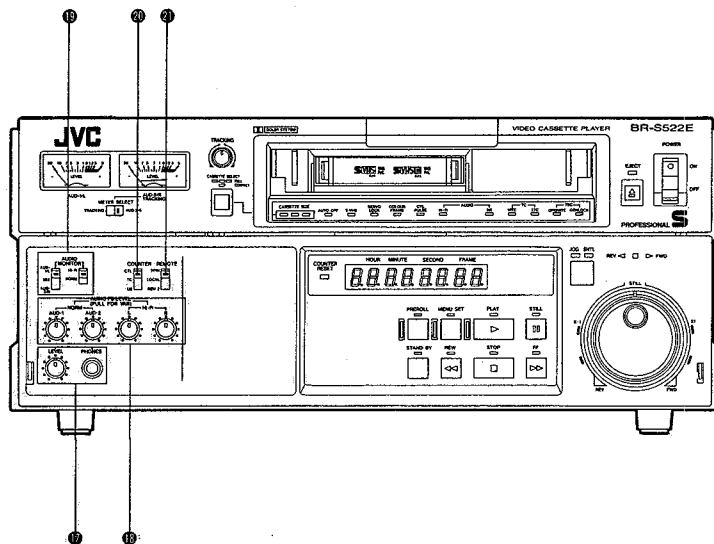
- Starts fast forward when pressed in any mode. Maximum FF speed is selectable via menu item #319 (see p.23).

MENU SET button

- Stores new settings for setup menu items.

16 COUNTER RESET button

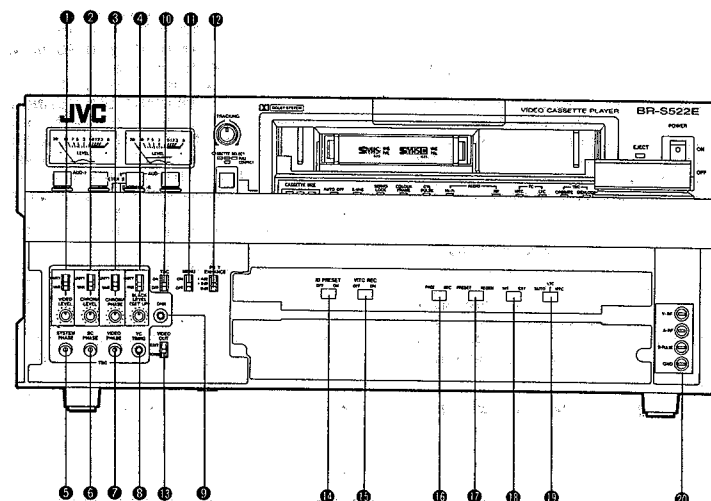
- Resets the CTL counter to zero.
- The CTL counter will be reset even if this button is pressed in the TC mode.



- ① PHONES jack/LEVEL control**
- Connect a set of headphones to monitor sound playback.
 - Adjust output level with the LEVEL control.
- ② HI-FI L/R and NORM AUD-1/AUD-2 AUDIO PB LEVEL controls**
- To separately adjust playback levels for the Hi-Fi left/right-channel signals and the normal (linear) audio-1/2 signals. Pull and turn for adjustment.
 - Optimum level is the point where the corresponding meter's peak deflection is "0".
- ③ AUDIO MONITOR select switches**
- To select the audio output for the PHONES jack and the AUDIO MONITOR OUT connector.
 - The HI-FI/NORM switch also switches the audio level meters between HI-FI and NORMAL.
- HI-FI: To monitor the Hi-Fi audio signals.
 NORM: To monitor the normal audio signals.
 AUD-1/L: To monitor the normal audio-1 or Hi-Fi left-channel signal.
 MIX: To monitor the AUD-1/L and AUD-2/R signals together.
 AUD-2/R: To monitor the normal audio-2 signal or Hi-Fi right-channel signal.

- ④ COUNTER select switch**
- To select the time counter display mode with the SA-R22E TC generator/reader installed. If this is not installed, CTL signals are displayed regardless of the switch setting.
 CTL: CTL signals are displayed on the time counter.
 TC: Time code signals are displayed on the time counter.
- UB: User bits are displayed on the time counter.
- ⑤ REMOTE select switch**
- To select between remote and local control of the player.
- 9-PIN: For remote control via the rear panel 9-pin connector.
 LOCAL: For direct control with the player's function buttons.
 REM-2: For remote control via the optional 45-pin or RS-232C interface.

FRONT SUB-PANEL



TBC CONTROLS

The controls in this section function when the optional SA-T22E TBC (time base corrector) is installed.

- ① VIDEO LEVEL UNITY/VARIABLE select switch/level control**
- UNITY: The output signal's video level is the same as the playback signal. Normally set to this position.
- VARIABLE: Allows you to adjust the output signal's video level with the VIDEO LEVEL control. Adjustment is possible within ± 3 dB.
- ② CHROMA LEVEL UNITY/VARIABLE select switch/level control**
- UNITY: The output signal's chroma level is the same as the playback signal. Normally set to this position.
- VARIABLE: Allows you to adjust the output signal's chroma level with the CHROMA LEVEL control. Adjustment is possible within ± 3 dB.
- ③ CHROMA PHASE UNITY/VARIABLE select switch/level control**
- UNITY: The output signal's chroma phase is the same as the playback signal.
- VARIABLE: Allows you to adjust the output signal's chroma phase with the CHROMA PHASE control. Adjustment is possible within $\pm 30^\circ$.

- ④ BLACK LEVEL (SET UP) VARIABLE/UNITY select switch/level control**
- UNITY: The output signal's setup level is the same as the playback signal.
- VARIABLE: Allows you to adjust the output signal's setup level with the BLACK LEVEL (SET UP) control. Adjustment is possible within ± 107 mV.
- ⑤ SYSTEM PHASE control**
- Adjusts the output signal's horizontal phase with respect to that of the reference input signal. Adjustment is possible within a range of ± 3 μ sec.
- ⑥ SC PHASE**
- Adjusts the output signal's subcarrier phase with respect to that of the reference input signal. Up to 15 rotations are possible with continuous variation over a range of $\pm 180^\circ$.
- ⑦ VIDEO PHASE control**
- Adjusts the output signal's video phase with respect to the playback signal's H sync. Up to 15 rotations are possible with continuous variation over a range of ± 1.5 μ sec.
- ⑧ YC TIMING control**
- Adjusts the output signal's C signal delay time with reference to the Y signal. Adjustable within ± 500 nsec.
 - Normally set to "8".
- ⑨ DNR control**
- Adjusts digital noise reduction when the SA-T22E is upgraded the SA-N22W DNR board.

10 TBC ON/OFF switch.

- Set to ON for TBC playback. (During TBC operation, the servo is locked to the reference signal supplied to the EXT REF connector.

- Set to OFF to bypass TBC.

11 MENU ON/OFF switch

- SET to ON to activate the On-Screen Menu. The counter display will also switch to the Menu Set mode.
- Most basic system setup operations are performed using the Menu.

12 PB Y ENHANCE switch

- Enhances the luminance signal for a sharper playback picture.
 - +4 dB: Boosts luminance signal level by 4 dB at 2.5 MHz for maximum picture sharpness.
 - +2 dB: Boosts luminance signal level by 2 dB at 2.5 MHz for a sharper picture.
 - 0 dB: No effect. The same result is obtained by setting the VIDEO OUT select switch 13 to EDIT.

13 VIDEO OUT select switch

- EDIT: Set to this position when using the BR-S522E as a feeder in editing.

NORM: Normally set to this position.

TIME CODE GENERATOR/READER SETTING SWITCHES

(With SA-R22E TC generator/reader installed)

Some controls in this section are associated with TC recording functions only and have no effects on the BR-S522E.

14 ID PRESET ON/OFF switch

- No effect.

15 VITC REC ON/OFF switch

- No effect.

16 FREE/REC switch

- No effect.

17 PRESET/REGEN switch

PRESET: To output playback time code signal via the TIME CODE OUT terminal.

REGEN: To output time code signal regenerated by the internal TC generator in sync with the playback time code signal. Normally set to this position. (p.24, menu item #404, 405)

18 INT/EXT switch

- No effect.

19 AUTO/LTC/VITC switch

- To select the TC reader mode. Select the mode according to the type of reference time code with which the internal TC generator is synchronised in the Regen mode.

AUTO: For tapes with matching VITC and LTC data. Counts time codes in VITC at tape speeds lower than normal, and in LTC at speeds higher than normal. Missing sections and sections at speeds higher/lower than ± 10 times normal are interpolated with CTL counts.

LTC: For LTC-only tapes or when editing with LTC data. Counts time codes in CTL at tape speeds lower than normal, and in LTC at speeds higher than normal. Missing sections and sections at speeds higher/lower than ± 10 times normal are interpolated with CTL counts.

VITC: For VITC-only tapes or when editing with VITC data. Counts time codes in VITC at tape speeds lower than normal, and in CTL at speeds higher than normal. Missing sections and sections at speeds higher/lower than ± 10 times normal are interpolated with CTL counts.

20 Test points

V-RF test point

- Outputs the video head FM signal during playback.
- Can be used for detection of clogged or worn heads.

A-RF test point

- Outputs the Hi-Fi audio FM signal during playback.
- Can be used for detection of clogged or worn heads.

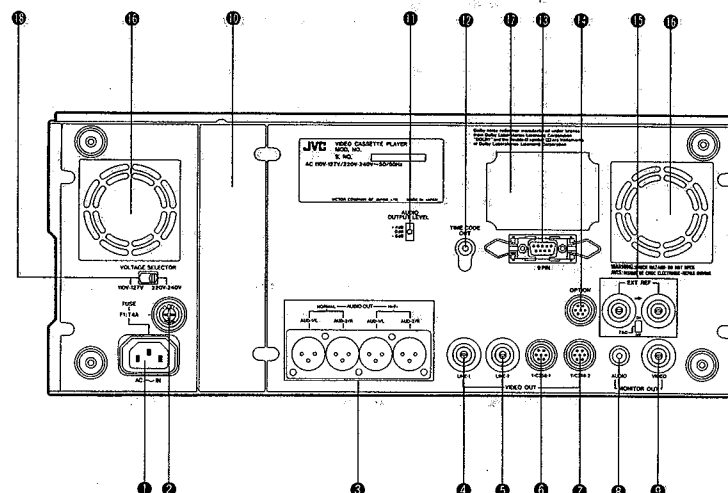
D-PULSE pin

- Connect to the external trigger terminal of an oscilloscope.

GND

- Connect to the ground terminal of an oscilloscope.

REAR PANEL



1 AC IN socket

- Connect to 110 - 120 V or 220 - 240 V AC, 50/60 Hz power outlet.

2 Fuse holder

3 Audio output connectors

AUDIO OUT NORMAL: Normal audio output connectors for Audio-1 and Audio-2.

AUDIO OUT HI-FI: Hi-Fi audio output connectors for Left and Right.

4, 5 VIDEO OUT LINE (1, 2) connectors

- The composite video signal is output from these connectors.

6, 7 VIDEO OUT Y/C443 (1, 2) connectors

- The Y/C443 signal is output from these connectors.

8 AUDIO MONITOR OUT connector

- The audio signal selected with the AUDIO MONITOR select switches is available at this connector.

9 VIDEO MONITOR OUT connector

- The composite video output signal is available at this connector. On-screen information is also supplied.

10 Expansion slot

- For installation of optional interface (SA-K28E or SA-K27E).

11 AUDIO OUTPUT LEVEL select switch

- To select -6 dB, 0 dB, or +4 dB according to the input level of connected audio equipment. All four audio channels are switched simultaneously.

12 TIME CODE OUT connector

- Connect a time code reader to the OUT connector for external time code reading.

13 9-PIN connector

- Connect to an RS-422 9-pin serial remote control unit or to the RS-422 9-pin connector of a recorder for swap editing.

14 OPTION connector

- Delivers the Y/C686/924 signal (with optional SA-E92E Output board installed) to the DUB IN connector of 3/4" U-VCR machines. (p.20, menu item #102)

15 EXT REF connectors with 75-ohm terminating switch

- Supply the reference signal (either black burst signal or composite video) to the left connector and set the 75-ohm terminating switch to ON.
- To output a loop-through signal to another unit, set the 75-ohm terminating switch to OFF.

NOTE:

- When using the SA-T22E, do not use a black-and-white signal or sync signal without burst as the reference signal, otherwise the intended synchronisation will not be obtained.

16 Fans

17 Expansion slot

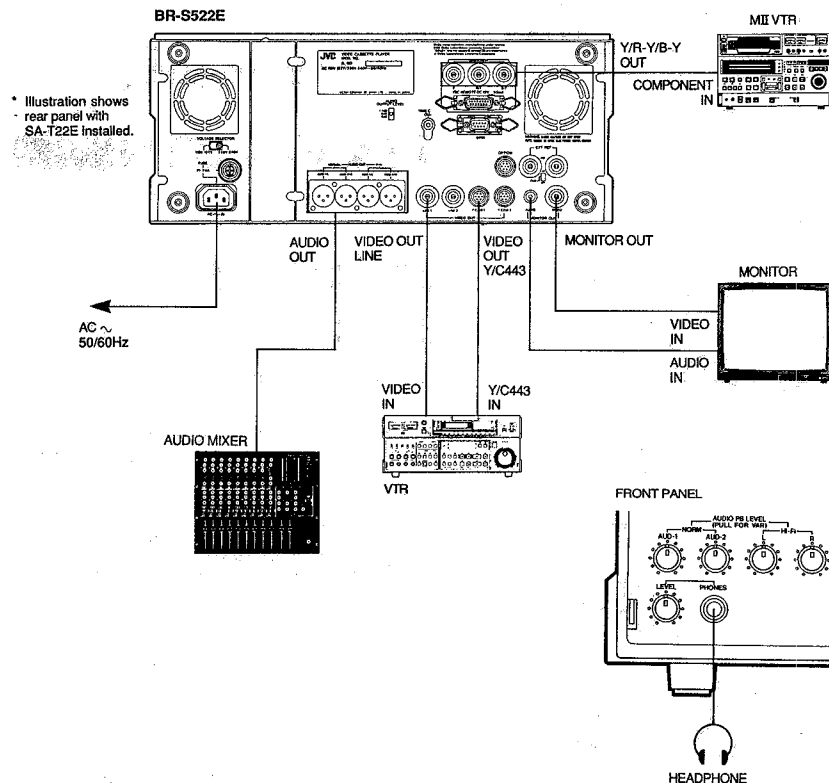
For installation of COMPONENT OUT connector board when optional SA-T22E TBC is installed. (p.20, menu item #104)

18 VOLTAGE SELECTOR

- Select voltage according to your local power supply. (Be sure the POWER is off when setting the voltage.)

CONNECTIONS

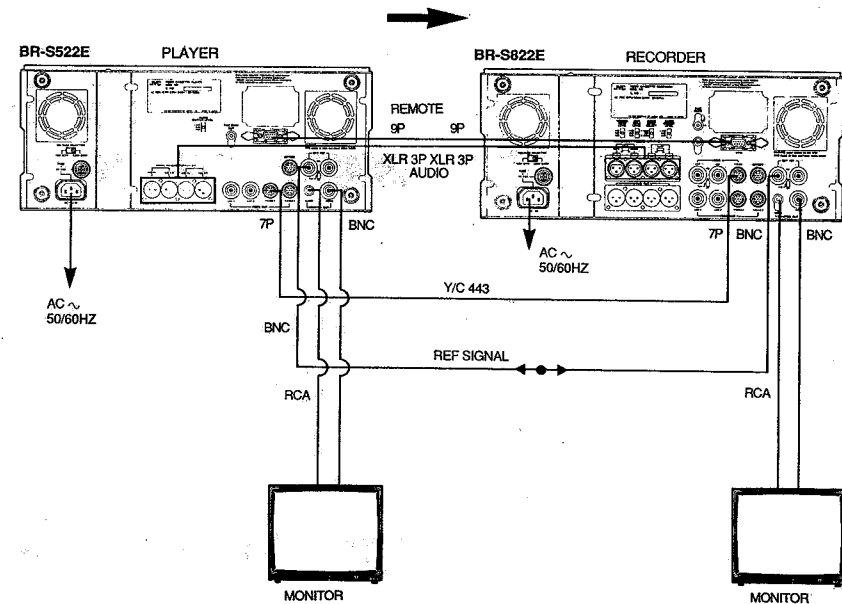
VIDEO/AUDIO CONNECTIONS



NOTES:

- To output the loop-through signal, set the 75-ohm terminating switch to OFF, otherwise set it to ON. (Be sure to terminate the signal at the last of the connected units.)
- On-screen information is output from the VIDEO MONITOR OUT connector only.
- Y/R-Y/B-Y component signals can be output when the optional TBC board SA-T22E is installed. M-II and Betacam component signals are selectable via menu item #104. (→ p.20)

SWAP EDITING CONNECTIONS



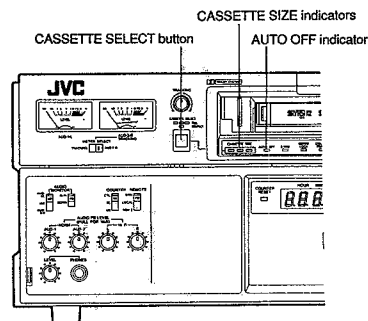
NOTES:

- To avoid distortion of the recorder's playback signal while the player is in the search mode, connect an external sync signal generator.
- To avoid distortion or missing colours caused by unstable source signals, the player's signal should be processed by a TBC. Be sure to use the optional SA-T22E TBC board when using the BR-S522E in this configuration and set the TBC switch to ON.
- For swap editing procedures, refer to the BR-S822E Editing Recorder's instruction manual.

LOADING AND UNLOADING VIDEO CASSETTES

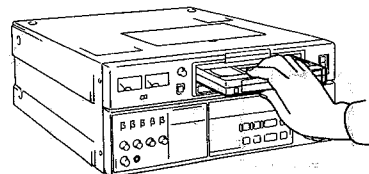
LOADING

- Switch on the power.
- Check the AUTO OFF indicator.
 - If this indicator lights, some abnormal condition such as condensation has occurred. All functions except Eject are disabled.
- Check the CASSETTE SIZE indicators.
 - If you're loading a full-size cassette, be sure that all three indicators are blinking.
 - If you're loading a compact cassette, be sure that only the center indicator is blinking.
- Press the CASSETTE SELECT button to change modes.
 - The cassette is automatically retracted and loaded.
 - The BR-S522E enters the Stop/Standby-On mode. The STOP and STAND BY indicators will light. In this mode, the tape is fully loaded and the head drum is rotating. The CASSETTE SIZE indicator(s) will stop blinking but remain illuminated.



NOTES:

- Be sure that the CASSETTE SIZE indicator(s) is blinking when inserting a cassette.
- To cancel the Standby-On mode, press the STAND BY button.
 - The head drum will stop rotating, but the tape remains in the full-loaded position. The STAND BY indicator will go out.
 - As soon as you engage another mode (Play, Rewind, Fast Forward, etc.), the STAND BY indicator will come on again.

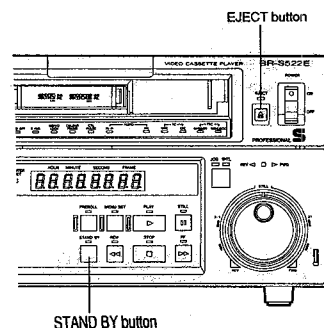


UNLOADING

- Press EJECT.
 - The cassette is ejected automatically.
 - You can press the EJECT button in any mode.
- Remove the cassette.

WARNING

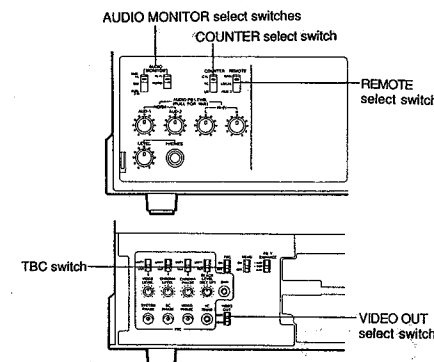
- Do not insert fingers or foreign objects into the cassette loading slot as this may result in personal injury or damage to the mechanism.
- Do not try to remove the cassette once automatic loading has started.



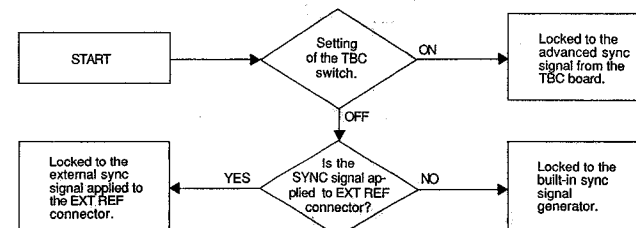
PLAYBACK

PREPARATION

- Set the AUDIO MONITOR select switches as required. (p.7)
- Set the COUNTER select switch as required. (p.7)
- Set the VIDEO OUT select switch as required.
 - NOR: for normal playback.
 - EDIT: when using the BR-S522E as an edit feeder.
- Set the REMOTE select switch as required. (p.7)
- Set the TBC switch to ON if you are using the SA-T22E or an external TBC.



REFERENCE SYNC SIGNALS

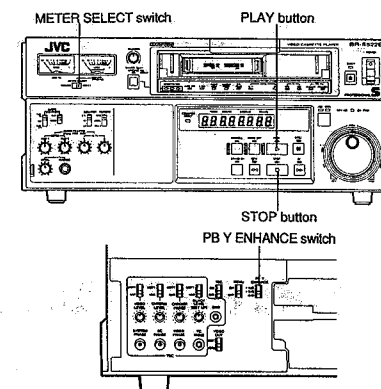


PROCEDURE

- Press the PLAY button.
 - Normal playback starts.
- Check the tracking level.
 - Set the METER SELECT switch to TRACKING.
 - Adjust the TRACKING control until the tracking meter (AUD-2/R) deflects fully to the right.
 - Check the monitor screen to be sure that the picture is not blurred or marred by noise bars.
- Set the PB Y ENHANCE switch as required.
 - If the VIDEO OUT select switch is set to EDIT, this switch has no effect.
- Press the STOP button to stop playback.

NOTES:

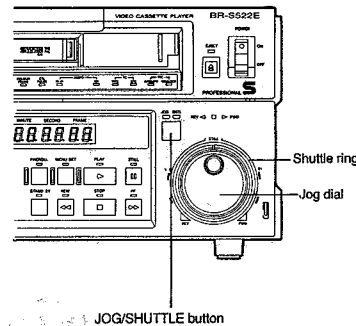
- LP recordings cannot be played back.
- The BR-S522E is preset to enter the Stop mode at tape end. If you want the unit to automatically rewind when the end of the tape is reached, set menu item #312 to "01 - REW". (p.22)



SHUTTLE SEARCH

The Shuttle Search mode is automatically activated when you turn the outer Shuttle ring in the Play, Still, FF, REW, or Stop mode. Turn the ring to adjust tape speed and direction as required.

- The STILL position (center click-stop) provides a still picture.
- Turn the dial clockwise to search in the forward direction; counterclockwise to search in the reverse direction.
- The X1 click-stop provides normal speed search in the forward direction. X-1 provides normal speed search in the reverse direction.
- Another click-stop is located between X1 and the maximum position. This provides search at 4 times normal speed.
- When the dial is turned fully clockwise or counterclockwise, maximum search speed (about 32 times normal with full-size cassettes and 14 times normal with C-size cassettes) is provided.
- To change modes, press the button corresponding to the desired mode (PLAY, STOP, REW, FF).
- For immediate reactivation of the Shuttle mode at the search speed corresponding to the current dial setting, press the JOG/SHUTTLE button.



JOG/SHUTTLE button

JOG SEARCH

Turn the inner Jog dial to adjust tape speed and direction as required.

- The BR-S522E enters the Jog mode and the JOG indicator lights.
- Tape speed varies in relation to how quickly you turn the dial.
- When the dial is released, the VCR enters the Still mode.

NOTES:

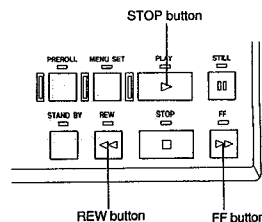
- Leaving the BR-S522E in the Still mode for too long may damage the tape. To prevent this, the tape is automatically shifted to another video track when the Still mode continues for more than 5 minutes. (selectable with menu item #307, (p.21).)

REWIND AND FAST-FORWARD

1. To rewind the tape at high speed, press REW in any mode.
2. To advance the tape at high speed, press FF in any mode.
3. Press STOP to stop rewind or fast-forward.

NOTES:

- Search mode is selectable via menu item #301 (p.21).
- Maximum REW/FF speed is selectable via menu item #319 (p.23).



PREROLL PLAYBACK

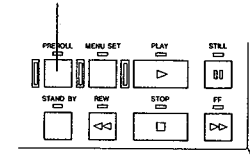
This function allows you to cue programs for feeding or insertion and ensures that the tape is stabilised when the picture is transmitted.

1. Locate the point where you wish playback to begin.
2. Press PREROLL.
 - The tape will rewind about 5 seconds of program time and enter the Stop mode. (Preroll time is selectable via menu item #320, (p.23))
3. Press PLAY exactly 5 seconds before the scheduled insertion time.
 - Playback starts. When transmission starts, the picture will be fully stabilised.

NOTES:

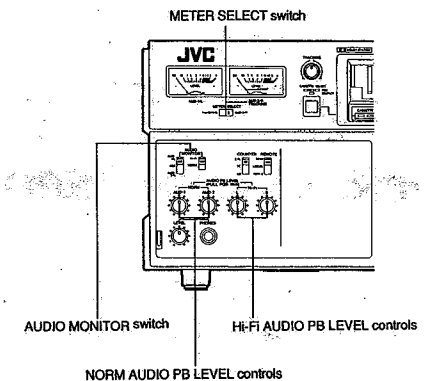
If menu item #322 is set to "01 - ENTERED", the IN point is entered automatically when the PREROLL button is pressed. Press the COUNTER RESET button to cancel entered IN point.

PREROLL button



AUDIO PLAYBACK LEVEL ADJUSTMENT

- Set the rear panel AUDIO OUTPUT LEVEL select switches to match the input signal level of connected equipment.
- Set the METER SELECT switch to AUD-2/R.
- For Hi-Fi audio level adjustment, set the AUDIO MONITOR switch to Hi-Fi and adjust the Hi-Fi AUDIO PB LEVEL L/R controls until the meters deflect to "0" at peak signal level.
- For normal audio level adjustment, set the AUDIO MONITOR switch to NORM and adjust the NORM AUDIO PB LEVEL AUD-1/AUD-2 controls until the meters deflect to "0" at peak signal level.
- The controls can be turned when pulled out.

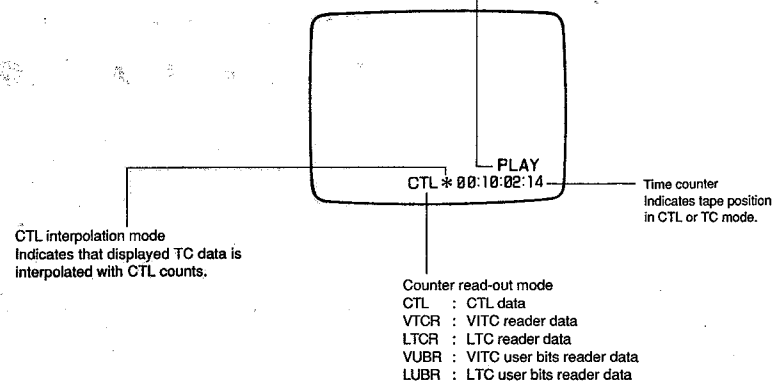


ON-SCREEN DISPLAYS

You can choose the display mode via menu setting. The time counter, operation mode, and Jog/Shuttle tape speed displays are available with the initial setting. You can reset the menu parameter to obtain either of the following displays:

Time Counter
Time Counter + Operation mode +
Jog/Shuttle tape speed

Operation mode
Indicates current operating mode and Jog/Shuttle tape speed (eg. "SHTL + 0.03").

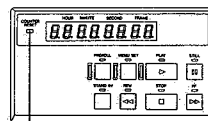


COUNTER DISPLAY

The BR-S522E's time counter shows tape time in hours, minutes, seconds, and frames in both CTL and TC modes. It also displays user bits, menu settings, and warning codes.

Resetting the counter

In the CTL mode, you can press the COUNTER RESET button to reset the time counter to zero.



COUNTER RESET button

NOTES:

- The counter cannot be reset during preroll and automatic editing.
- For details on menu setting and warning code displays, see p. 19 and p. 27.

TIME CODE/USER BITS

TIME CODE

This system simplifies location and specification of video frames by marking each frame with an 8-digit code number or "address". Essential for accurate editing, these "addresses" represent absolute tape positions and are displayed in hours, minutes, seconds, and frames, allowing you to specify exactly where edits are to start and stop by entering the IN and OUT time code values.

There are two different time code systems: LTC and VITC.

LTC (Longitudinal Time Code)

Time code addresses are recorded on a dedicated linear track by a fixed head. With the BR-S522E, the audio-2 track functions as an LTC track. (see p.21, menu item #206)

VITC (Vertical Interval Time Code)

The VITC is recorded during the video signal's vertical blanking period by a rotary head. Besides leaving the audio-2 channel free for editing, this permits accurate readout during still and search at speeds less than normal.

The time code used for the BR-S522E and the SA-R22E time code reader/generator conforms to the EBU standard.

USER BIT

"User bits" is a portion of the time code signal allocated to the user. It can be used to record the operator number or reel numbers.

TIME CODE EDITING

Accurate editing in reference to time code data is possible with editing suites controlled via 9-pin serial interface.

- Install the SA-R22E TC board in the BR-S522E.
- Use another VCR with TC reading capability as the recorder, eg. the BR-S822E with SA-R22E TC board installed.
- For swap editing, connect the recorder and player via 9PIN connectors. Set the COUNTER switch to TC.
- For externally controlled editing, use a 9-pin serial editing controller. Switching between TC and CTL modes can be done with the controller.

TIME CODE PLAYBACK

- When tapes with time code are played back, the rear panel TIME CODE OUT connector outputs the playback time code signal in its original form. The counter shows time code being read by the internal TC reader (with COUNTER switch set to TC).
- If you need regenerated LTC time code from the TIME CODE OUT connector, set the PRESET/REGEN switch to REGEN and re-set menu item #405 to "01 - TCG" (see p.24). To dub time code, or to supply the playback time code signal to another VCR, use this mode for more assured time code recording.

NOTES:

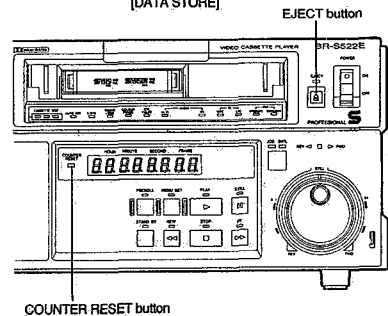
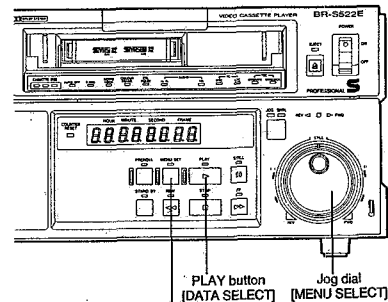
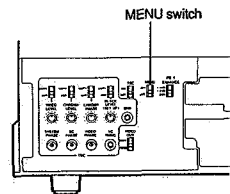
- All time code data is cleared when power is switched off.

SETUP MENU

OPERATION

By engaging the Menu Set mode, you can cancel any preset functions that you don't require or change certain parameters as desired.

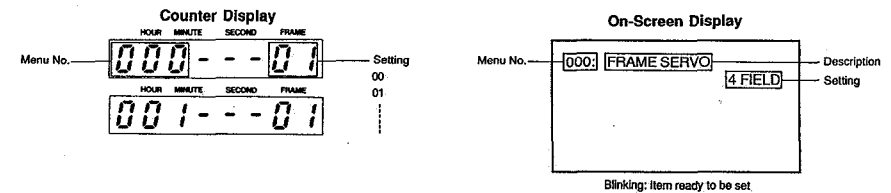
1. Set the MENU switch to ON.
 - The set-up menu appears on the monitor screen. The counter display will also switch to the Menu Set mode.
 - The Menu number (000) for the first item will blink.
2. Turn the Jog dial to locate the item you want to set.
 - Turning the dial clockwise increments the setting items (000→100→102, etc.); turning it counterclockwise, decrements the setting items.
3. When you locate an item you wish to change, press PLAY.
4. Press PLAY again to change the setting.
5. To continue setting, repeat steps 2 to 4.
6. Press MENU SET to store the new settings.
7. To exit the menu, set the MENU switch to OFF.



NOTE:

- All menu items can be automatically restored to their initial settings. To do this, first switch off the VCR's power. Then, while pressing COUNTER RESET and EJECT simultaneously, switch on the power. Keep the buttons pressed for at least five seconds. All menu items will have been restored to their initial settings.

MENU SETTINGS



(Initial settings are in brackets.)

Menu No.	On-Screen Description	Settings		Explanation
		Counter	On-Screen	
SERVO	000 FRAME SERVO	[01]	[4 FIELD]	4 FIELD: To use Colour Frame Servo when editing in colour frame servo mode. 2 FIELD: To use Frame Servo.
		02	2 FIELD	
VIDEO	100 SWITCHING POINT	[00]	[PB4.5H]	Selects head switching point. PB4.5H: To position head switching point 4.5H ahead of V sync in playback (1H lower than normal). Normally use this setting. PB5.5H: To position head switching point 5.5H ahead of V sync in playback. PB1.25H: To position head switching point 1.25H ahead of V sync in playback. Use this setting when a tape recorded with the head switching point set at 2.25H ahead of V sync is played back in the TBC mode. (This type of recording is applied in closed-circuit systems for a lower switching point.)
		01	PB5.5H	
		02	PB1.25H	
	102 U-VCR Y/C MODE	[00]	[CONV.]	Selects the mode of the signal output via rear panel OPTION (Y-686/924) connector. (Effective with SA-E92E board) CONV.: To output Y-686 dubbing signal to conventional 3/4" U-VCR machines. HB/SP: To output Y-924 dubbing signal to 3/4" U-VCR SP or Hi-Band machines.
		01	HB/SP	
	104 COMPONENT OUT LEVEL	[00]	[LOW]	Selects the level of component signals output via rear panel Y/R-Y/B-Y connectors. (Effective with SA-T22E) LOW: To output component signals to MII machines. HIGH: To output component signals to Betacam machines.
		01	HIGH	

Menu No.	On-Screen Description	Settings		Explanation
		Counter	On-Screen	
AUDIO	201	NORM. AUDIO DOLBY NR	00 OFF [01] [ON]	OFF: To defeat Dolby NR circuit for normal audio. ON: To activate Dolby NR circuit for normal audio.
	203	AUDIO OUT	[00] [SEP.] 01 HI-FI 02 NORM	Selects output signals via rear panel AUDIO OUT connectors. SEP.: To output as labelled: normal audio from NORMAL AUD-1/AUD-2, Hi-Fi audio from Hi-Fi L/R. Hi-Fi: To output Hi-Fi audio from all connectors: NORMAL AUD-1 outputs Hi-Fi left-channel signal and NORMAL AUD-2 outputs Hi-Fi right-channel signal. NORM: To output normal audio from all connectors: Hi-Fi L outputs normal audio-1 signal and Hi-Fi R outputs normal audio-2 signal.
	204	HI-FI OUT AT SEARCH	[00] [MUTE] 01 NORM	Selects output signals via rear panel HI-FI AUDIO OUT connectors during search. MUTE: To output muted Hi-Fi audio. NORM: To output normal audio.
	206	AUD-2/LTC	[00] [AUD-2] 01 LTC	Selects signals to be recorded on the normal audio-2 track. AUD-2: To play back tapes with no LTC recorded on the normal audio-2 track. LTC: To play back LTC-recorded tapes.
SYSTEM	300	DIRECT EJECT	00 DISABLE [01] [ENABLE]	DISABLE: EJECT command is accepted only from Stop mode. ENABLE: EJECT command is accepted from any mode.
	301	DIRECT SEARCH	00 DISABLE [01] [ENABLE]	DISABLE: Jog/Shuttle dials do not function unless JOG/SHTL button is pressed first. ENABLE: Jog/Shuttle dials function directly from Stop, Play, Still, FF and REW modes.
	303	WARNING INHIBIT	[00] [OFF] 01 ON	OFF: Malfunctions are detected for warning indications. Normally keep set to this position. ON: Detection of malfunctions is inhibited. No warning indication is available.
	305	REPEAT PLAY	[00] [DISABLE] 01 ENABLE	DISABLE: Repeat playback is not available. ENABLE: The entire tape is played back repeatedly until cancelled.
	306	LONG PAUSE	00 DISABLE [01] [ENABLE]	DISABLE: To defeat Long Pause function. ENABLE: To use Long Pause function in Standby-On, Still and Record-Pause modes. (Long Pause parameters are selected with menu items #307, #308 and #309.)
	307	LONG PAUSE TIME	00 1 SEC 01 10 SEC 02 30 SEC 03 1 MIN 04 2 MIN 05 3 MIN 06 4 MIN [07] [5 MIN]	With menu item #306 set to ENABLE, selects the length of time before normal Pause (Standby-On and Still) mode changes to Long Pause.

Menu No.	On-Screen Description	Settings		Explanation
		Counter	On-Screen	
SYSTEM	308	LONG PAUSE (STILL)	00 01 STANDBY-OFF T. RELEASE [02] [STEP FWD]	Selects the contents of Long Pause mode. (After the time set with menu item #307 expires in Still mode, the VCR operates as specified.) STANDBY-OFF: Enters Standby-Off mode. T. RELEASE: Tension arm is released for tape protection. Still pictures continue to be available. STEP FWD: Tape advances 2 frames in slow-motion for about 2 seconds. This action is repeated 5 times at the time intervals set with menu item #307. The VCR enters the Standby-Off mode after the final interval.
	309	LONG PAUSE (STOP)	[00] [STANDBY-OFF] 01 T. RELEASE 02 STEP FWD	Selects the contents of Long Pause mode. (After the time set with menu item #307 expires in the Standby-On mode, the VCR operates as specified.) STANDBY-OFF: Enters Standby-Off mode. T. RELEASE: Tension arm is released for tape protection. STEP FWD: Tape advances 2 frames in slow-motion for about 2 seconds. This action is repeated 5 times at the time intervals set with menu item #307. The VCR enters the Standby-Off mode after the final interval.
	310	STANDBY-OFF MODE	00 DRUM ON [01] [DRUM OFF] 02 UNLOAD	Selects the status of Standby-Off mode. DRUM ON: Head drum continues to rotate with tape loaded. DRUM OFF: Head drum stops rotating with tape loaded. UNLOAD: Head drum stops rotating and tape unloads.
	311	MODE AT TAPE BEGIN	[00] [SHORT-FF] 01 PLAY	Selects the mode entered when the beginning of the tape is detected. SHORT-FF: Fast-forwards the leader section and enters Standby-On mode. PLAY: Enters Play mode.
	312	MODE AT TAPE END	[00] [SHORT-REW] 01 REW	Selects the mode entered when the end of the tape is detected. SHORT-REW: Rewinds the leader section and enters Standby-On mode. REW: Rewinds to the beginning of tape and enters Standby-On or Play mode depending on the setting of menu item #311.
	313	PB/PB/BLACK	00 PB/BLACK [01] [PB]	Selects output signal in the mode specified with menu item #314. PB/BLACK: No signal is output. PB: Playback signal is output.
	314	PB/BLACK MODE	[00] [STOP/FF/REW] 01 STOP	Selects the mode in which no signal is output. STOP/FF/REW: No signal is output in Stop, FF and REW modes. STOP: No signal is output in Stop mode and search playback signal is output in FF and REW modes.
	315	LOCAL FUNCTION	[00] [STOP,EJECT] 01 STP,EJ,PLY,FF, RW,STL 02 ALL ENABLE 03 ALL DISABLE	Selects functions that can be locally operated when front panel REMOTE switch is set to 9PIN or REM-2.
	316	9PIN CMD FUNCTION	[00] [ALL DISABLE] 01 STOP, EJECT	Selects 9-pin remote control commands that are acceptable when front panel REMOTE switch is set to LOCAL. ALL DISABLE: Accepts no command from 9-pin remote control. STOP,EJECT: Accepts STOP and EJECT commands only. (Note: With some remote controls, no command is accepted.)

Menu No.	On-Screen Description	Settings		Explanation
		Counter	On-Screen	
SYSTEM	317 9PIN DEVICE TYPE ID	[00] 01 02 03	[JVC SVHS-1] JVC SVHS-2 OTHER TYPE-1 OTHER TYPE-2	Selects device type ID returned from VCR to 9-pin remote control in response to its request. JVC SVHS-1: Use this setting with RM-G860E/BR-S822E. JVC SVHS-2: Use this setting with a controller that accepts the SA-F911E's ID. OTHER TYPE-1/OTHER TYPE-2: Consult a JVC dealer.
	318 TC DATA W/O TC BOARD	[00] 01	[TC MISSING] CTL DATA	Selects VCR's response to 9-pin remote control when remote control requests time code data when TC board is not installed. TC MISSING: VCR returns code meaning TC MISSING. CTL DATA: VCR returns substitute CTL data.
	319 TAPE MAX SPEED	[00] 01 02	[X100] X32 X16	Selects maximum tape speed. (FF and REW speeds also correspond to this setting. In the 100x mode, no signal is output. In the 32x and 16x search modes, the playback signal is output. The CTL signal is not output in the 16x search mode.)
	320 PREROLL TIME	00 [07] 15	0 SEC [7 SEC] 15 SEC	Selects preroll time in one-second steps from 0 to 15 seconds.
	321 TIME REF. FOR PREROLL	00 [01]	CTL [TC]	Selects time count reference for preroll in TC operation. CTL: Refers to CTL counts. Preroll is possible even when time codes are missing. TC: Refers to time codes.
	322 IN POINT AUTO ENTRY	[00] 01	[NOT ENTERED] ENTERED	Activates or defeats automatic IN point entry function. NOT ENTERED: IN point is not entered automatically by pressing PREROLL button. ENTERED: IN point is entered automatically by pressing PREROLL button if no IN point has been previously entered. (Press the COUNTER RESET button to cancel.)
	323 MODE AFTER PREROLL	[00] 01	[STOP] STILL	STOP: Enters Stop mode after preroll is completed. STILL: Enters Still mode after preroll is completed.
	325 CTL COUNTER MODE	[00] 01	[±9H] 24H	±9H: Counter shows from -9 to +9 hours in CTL mode. 24H: Counter shows from 0 to 24 hours in CTL mode.
	326 CTL COUNTER MEMORY	[00] 01	[OFF] ON	OFF: No counter memory function is available. ON: Enters Stop mode at CTL counter reading of zero in FF and REW modes.
	327 CTL CLEAR AT EJECT	00 [01]	DISABLE [ENABLE]	DISABLE: CTL counter is not reset when cassette is ejected. ENABLE: CTL counter is reset when cassette is ejected.
	332 CASSETTE SEL. INHIBIT	[00] 01	[OFF] ON	OFF: Cassette size selection is possible with the CASSETTE SELECT button on the front panel. ON: Cassette size selection is inhibited.

Menu No.	On-Screen Description	Settings		Explanation
		Counter	On-Screen	
SYSTEM	333 CF SERVO LOCK REPLY	00 [01]	DISABLE [ENABLE]	Selects information to deliver to 9-pin remote. DISABLE: Colour frame cannot be locked to 4-field colour framing mode (even if locked). ENABLE: Colour frame is locked to 4-field colour framing mode.
	334 CF RE-LOCK AT PLAY	[00] 01	[DISABLE] ENABLE	Activates or defeats colour frame re-lock function when colour frame lock is disengaged in Play mode.
TIME CODE	404 TC SOURCE AT REGEN	[00] 01	[LTC] VITC	Selects the type of reference time code in the Regen mode. LTC: Reference code is LTC. VITC: Reference code is VITC.
	405 LTC OUT (REGEN)	[00] 01	[OFF TAPE] TCG	Selects output signal from TIME CODE OUT connector while playback is in progress in Regen mode. OFF TAPE: Outputs time code signal picked up from tape. TCG: Outputs time code signal regenerated by TC generator.
ON-SCREEN	500 ON-SCREEN DISPLAY	00 [01]	OFF [ON]	OFF: No data is displayed on-screen. ON: Data is displayed on-screen.
	501 CHAR. H-POSITION	[00] 08	[00] 8	Adjusts on-screen VCR data display position in the horizontal direction. 0: VCR data is displayed at the rightmost position. 1-8: Display position shifts to the left with increasing numbers.
	502 CHAR. V-POSITION	[00] 09	[00] 9	Adjusts on-screen VCR data display position in the vertical direction. 0: VCR data is displayed at the bottom of screen. 1-9: Display position shifts up with increasing numbers.
	503 CHAR. BACKGROUND	[00] 01 02	[BORDER] SEMI. BLACK	BORDER: Displays bordered characters. SEMI.: Displays semi-transparent characters. BLACK: Displays characters on black background.
	504 INFORMATION	00 [01]	TIME [TIME & MODE]	Selects available on-screen information. TIME: Time counter data. TIME & MODE: Time counter data, operation mode and Jog/Shuttle tape speed.
	600 TBC FREEZE	[00] 01	[DISABLE] ENABLE	Selects the mode of still pictures in TBC operation. DISABLE: Outputs normal still pictures. ENABLE: Outputs 'freeze' still pictures from TBC's field memory when STILL button is pressed while in Play mode. This is effective only in LOCAL operation.
	601 V BLANK MASK	[00] 01	[OFF] ON	Activates or defeats vertical blanking interval masking function in TBC operation. OFF: No masking function. ON: Masks the entire vertical blanking interval in playback to erase VITC. VITC readout is impossible with this setting.
TBC	602 DNR	00 [01]	OFF [ON]	Activates or defeats operation of optional Digital Noise Reducer. (Only effective with optional SA-T22E installed.) OFF: Playback bypass DNR. ON: Playback through DNR.

ROM VERSION/HOUR METER DISPLAY

By engaging the Menu Set mode, you can also check the numbers of device ROMs and the hour meter.

- Set the MENU switch to ON.
 - The set-up menu appears on the monitor screen. The counter display will also switch to the Menu Set mode.
 - The Menu number (000) for the first item will blink.
- Turn the Jog dial to locate items with numbers in the order of 900.
 - For quicker location, turn the Jog dial counterclockwise.

Counter Display

900- - - 01

901- - - 01

902- - - 01

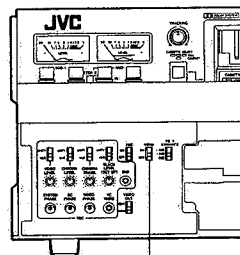
903-0000

908-0000

909-0000

910-0000

911-0000



MENU switch

On-Screen Display

900:SYSCON ROM Ver. 01
 901:MECHACON ROM Ver. 01
 902:OPERATION ROM Ver. 01
 903:SLOT ROM Ver. NO CONNECT 00
 AVM/OS ROM Ver. 04

908:POWER HOUR METER 0000H
 909:DRUM HOUR METER 0000H
 910:CAP HOUR METER 0000H
 911:REEL HOUR METER 0000H

Menu No.	On-Screen Description	Explanation
900	SYSCON ROM Ver.	Indicates version number of SYSCON ROM.
901	MECHACON ROM Ver.	Indicates version number of MECHACON ROM.
902	OPERATION ROM Ver.	Indicates version number of OPERATION ROM.
903	SLOT ROM Ver.	Indicates version number of SLOT ROM. This item also shows the type of remote control installed in the slot. Available indications are: JVC45PIN (20 on 5th and 6th digits on counter display) RS-232C (21 on 5th and 6th digits on counter display) NO CONNECT (00 on 5th and 6th digits on counter display)
---	AVM/OS ROM Ver.	Indicates version number of AV microcomputer/on-screen ROM.
908	POWER HOUR METER	Indicates the total time (up to 4 digits in hours) the BR-S522E has been powered.
909	DRUM HOUR METER	Indicates the total working time of the drum motor in hours.
910	CAP HOUR METER	Indicates the total working time of the capstan motor in hours.
911	REEL HOUR METER	Indicates the total working time of the reel motors in hours.

CAUTION

Do not set the following two settings together:
 Menu item #303 WARNING INHIBIT — 01 ON, and #306 LONG PAUSE — 00 DISABLE.
 We are not responsible for any malfunctions caused by this combination of settings.

WARNING DISPLAY

DIAGNOSTIC CODES

The WARNING display uses numerical codes to indicate various malfunctions and warnings on the counter display. Worded warning messages are provided on-screen. In some cases, power must be turned off before the machine can be recovered. When the AUTO OFF indicator lights, power must be turned on and off again before the machine can be recovered.

	AUTO OFF Indicator	Display code	WARNING (On-Screen Display)	Symptom/Operation
Sensors	YES	01	WARNING 01 LAMP FAILURE	Tape-end sensor LED burns out. The cassette will be ejected. All controls become inoperative.
	YES	02	WARNING 02 CONDENSATION ON DRUM	Moisture condensation on drum and in transport. The cassette is ejected. After ejection, the drum starts rotating and cassettes cannot be loaded until condensation has been eliminated. Do not turn the power off until the AUTO OFF indicator goes out.
	YES	08	WARNING 08 SUP TENSION FAILURE	Slack tape on the supply reel. All controls become inoperative.
Loading Mechanism		32	WARNING 32 FAILURE LOADING	Tape cannot load correctly. Tape unloads and the cassette is ejected. The display turns off when a cassette is inserted again. Normal operation is restored.
	YES	33	WARNING 33 FAILURE UNLOADING	Tape cannot unload. All controls become inoperative.
Cassette Carriage	YES	41	WARNING 41 CASSETTE EJECT FAILURE	Cassette carriage does not lift during tape ejection (even after 3 seconds have passed). All controls become inoperative.
Leader Tape Detection		56*	WARNING 56 TAPE DEFECTIVE	Tape beginning and end sensors turn ON during loading because the tape is broken. The cassette is ejected. If the cassette fails to load properly, it may get stuck in the cassette slot. In this case, remove it by hand. The display turns off when an undamaged cassette is inserted. Normal operation is restored.
		57	WARNING 57 END LEADER DETECTION	Tape-end sensor turns ON during loading. Rewind mode is engaged. If the leader tape is detected within 3 seconds, the cassette is ejected. The display turns off when a cassette is inserted again. Normal operation is restored.
		58	WARNING 58 BEGIN LEADER DETECTION	Tape-beginning sensor turns ON during loading. FF mode is engaged. If the leader tape is detected within 3 seconds, the cassette is ejected. The display turns off when a cassette is inserted again. Normal operation is restored.

	AUTO OFF Indicator	Display code	WARNING (On-Screen Display)	Symptom/Operation
Rotating System	YES	70	WARNING 70 DRUM MOTOR FAILURE	Drum motor stops. All controls become inoperative. Recovers when a cassette is inserted again.
	YES	71	WARNING 71 CAP MOTOR FAILURE	Capstan motor stops. All controls become inoperative. Recovers when a cassette is inserted again.
	YES	72	WARNING 72 SUP REEL MOTOR FAILURE	Supply reel rotates abnormally. All controls become inoperative. Recovers when a cassette is inserted again.
	YES	73*	WARNING 73 TU REEL MOTOR FAILURE	Take-up reel rotates abnormally. All controls become inoperative. Recovers when a cassette is inserted again.
Others	YES	04	WARNING 04 REEL SERVO FAILURE	Power supply to reel tension servo stops. All controls become inoperative.

* Cassette insertion is not possible if the cassette slot remains open after cassette ejection. In this case, press the EJECT button to close the slot door, and insert the cassette again.

TEST POINTS

The output signals from the Hi-Fi audio heads and video heads are available at the front panel test points. Connect an oscilloscope to these test points to check the BR-S522E's performance and condition.

Connection	Items to be checked	Standard waveform
Hi-Fi audio head output  - V-RF: To input terminal of oscilloscope - A-RF: To external trigger terminal of oscilloscope - D-PULSE: To ground terminal of oscilloscope - GND: To ground terminal of oscilloscope	- Tape-to-head contact - Tape running stability - Inferior RF after head replacement	"+" triggered 
Video head output  - V-RF: To input terminal of oscilloscope - A-RF: To external trigger terminal of oscilloscope - D-PULSE: To ground terminal of oscilloscope - GND: To ground terminal of oscilloscope	- Compatibility of tape pattern - Tape-to-head contact - Tape running stability - Tracking - Abnormality in RF Use a 10:1 probe	"+" triggered 

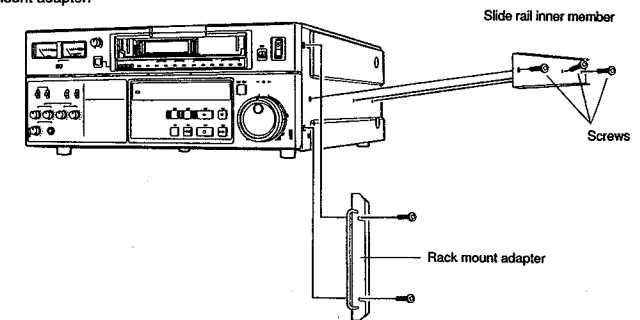
INSTALLATION

RACK MOUNTING

Using the optional SA-K63UB Rack Mount Adapter, you can install the BR-S522E in a 19" EIA-standard rack.

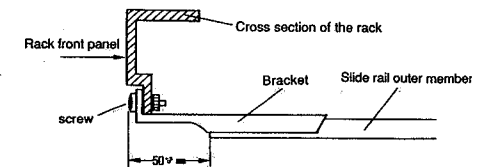
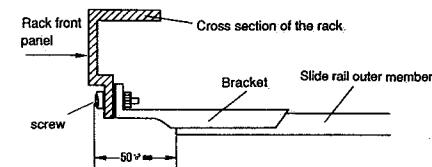
- Use a complete slide and bracket unit such as the Accuride slide and bracket unit (Part No. C-2038-22/BK-2038).
- For more details, consult your local JVC service agent.

- Attach the inner members of the slide rails with screws as illustrated. (Screws should be no more than 8 mm long.)
- Attach the SA-K63UB rack mount adapter.



- Attach the right and left brackets and outer members of the slide rails to the rack.
 - When installing the bracket at the back of the rack's panel surface.

- When installing the bracket at the front of the rack's panel surface.



- Adjust the distance between the front panel and the slide rail to between 50 and 55 mm.
- Check that the unit slides in and out smoothly.

NOTE:

- The rack mount adapter handle is only for sliding the unit. Do not carry the unit holding the handle.

CONNECTOR SPECIFICATIONS

9-Pin Remote Connector

Pin No.	Local	Remote
1	GND	GND
2	RECEIVE A	TRANS A
3	TRANS B	RECEIVE B
4	GND	GND
5	—	—
6	GND	GND
7	RECEIVE B	TRANS B
8	TRANS B	RECEIVE A
9	GND	GND

Y/C 443 7-Pin Connector

Pin No.	Signal
1	Y SIGNAL
2	GND (Y SIGNAL)
3	—
4	—
5	C SIGNAL
6	GND (C SIGNAL)
7	—

XLR 3-Pin Connector

Pin No.	Signal
1	GND
2	COLD
3	HOT

15-Pin TBC Remote Connector (option)

Pin No.	Signal
1	FG
2	+12V
3	GND
4	VIDEO LEVEL
5	CHROMA LEVEL
6	CHROMA PHASE
7	SET UP LEVEL
8	RSVD DC 1
9	RSVD DC 2
10	REMOTE EN
11	FREEZE EN
12	RSVD CTL 1
13	RSVD CTL 2
14	OPERATE
15	GEN LOCK

45-Pin Remote Connector (option)

1	GND	◁	21	V SPEED CTL	◁	ANALOG
2	REC CMD*	◁	22	EDIT TALLY	▶	
3	STOP CMD	◁	23	STILL TALLY	▶	
4	PLAY CMD	◁	24	SEARCH TALLY	▶	
5	FF CMD	◁	25	PREROLL TALLY	▶	
6	REW CMD	◁	26	FF TALLY	▶	
7	FWD CMD	◁	27	PLAY TALLY	▶	
8	SEARCH CMD	◁	28	STOP TALLY	▶	
9	REV CMD	◁	29	REW TALLY	▶	
10	STILL CMD	◁	30	REC TALLY*	▶	
11	PREROLL CMD	◁	31	TAPE REV	▶	
12	E. START CMD	◁	32	CTL PULSE	▶	
13	E. STOP CMD	◁	33	NC	▶	
14	PREVIEW CMD	◁	34	12V DC	▶	
15	REMOTE CMD	◁	35	CTL PULSE	▶	
16	A1 INS CMD*	◁	36	EE CMD	◁	
17	A2 INS CMD*	◁	37	X2 CMD	◁	
18	V INS CMD*	◁	38			
19	SERVO LOCK	▶	39	X1/5 CMD	◁	
20	ASSEM CMD*	◁	40	DFR STOP CMD	◁	
			41	X1 CMD	◁	
			42	EXTERNAL CAP SEARCH	◁	
			43	VHS	▶	
			44			
			45	EJECT CMD	◁	
				◁ TO VTR		
				▶ FROM VTR		
				PULSE		STATUS

* Not applicable to the BR-S522E.

Y-686/924 7-Pin Output (option)

Pin No.	Signal
1	Y SIGNAL
2	GND (Y SIGNAL)
3	—
4	—
5	C SIGNAL
6	GND (C SIGNAL)
7	COLOUR FRAME PULSE

SPECIFICATIONS

GENERAL

Format	VHS/S-VHS Europe standard
Power consumption	80 W
Power requirement	AC 110 - 127 V/220 - 240 V~, 50/60 Hz
Dimensions	42.9 (W) X 18.8 (H) X 56.5 (D) cm
Weight	23 kg
Operating temperature	5°C to 40°C
Storage temperature	-20°C to 60°C
Tape speed	23.39 mm/sec
Recording & Playback time	Max. 180 min. with JVC SE-180/E-180
Fast forward/ Rewind time	Less than 2.5 min. for 180 min. tape

VIDEO

Playback	Rotary two-head helical scanning system
Luminance	FM recording
Colour signal	Phase shift, converted sub-carrier direct recording
Video signal system	PAL-type colour signal/PAL-type Y/C signal
Output	Line : 1.0 Vp-p, 75 ohms, unbalanced Y/C 443 : Y: 1.0 Vp-p, 75 ohms, unbalanced C: 0.3 Vp-p, 75 ohms, unbalanced (Burst)
Signal-to-noise ratio	More than 46 dB (S-VHS) More than 45 dB (VHS)
Horizontal resolution	More than 400 lines (S-VHS) More than 250 lines (VHS)
Reference video input	0.3 to 1.0 Vp-p, 75 ohms, unbalanced (with loop-through, with the SA-T22E)
External sync input	0.3 to 4.0 Vp-p, 75 ohms, unbalanced (with one loop-through, without the SA-T22E)

AUDIO

Output	Line : -6/0/4 dBs, Low impedance, balanced (Hi-Fi/Normal) Monitor : -6 dBs, Low impedance, unbalanced Phones : -6 to -17 dBs, 8 ohms
Signal-to-noise ratio	More than 43 dB (NR-off, Normal at 3% distortion)
Dynamic range	More than 87 dB (Hi-Fi)
Frequency response	20 to 20,000 Hz (Hi-Fi) 40 to 12,000 Hz (Normal)
Wow & flutter	Less than 0.005% WRMS (Hi-Fi) Less than 0.3% RMS (Normal)

TIME CODE

Output	0 dB ± 3 dBs, Low impedance, unbalanced
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CONNECTORS

Video	Line output : BNC-type connectors Y/C 443 output : 7-pin connectors Monitor : BNC-type connector
Audio	Hi-Fi output : XLR connectors Normal output : XLR connectors Monitor : RCA connector Remote control : 9-pin connector

Design and specifications subject to change without notice.